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10/536,836	05/31/2005	Tadayoshi Ito	038440-0124	6495

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EXAMINER	
NGUYEN, KHAI MINH	
ART UNIT	**PAPER NUMBER**
2617	
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07/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/536,836	ITO ET AL.	
	Examiner	Art Unit	
	KHAI M. NGUYEN	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/20/2009 has been entered.

Claims 1, 4, and 7 have been amended.

Eun in view of Obata, Kotani, and Stanwood clearly disclose

(1) reception level obtaining means for obtaining a reception level corresponding to received signal strength of said set reception control slot when a link channel establishment request message is received in said set reception control slot (see Obata, [0035] **determines the base transceiver station, the communications channel, and slot timing**, and [0053]-[0054] **master base station 1 investigates the slot opening information and carrier sensing information** (signal strength) **on each base transceiver station**), and traffic channel allocating means for allocating a traffic channel with respect to a mobile station transmitting the link channel establishment request message to predetermined transmission (see Obata, [0053] **the wireless circuit control channel control section 101 receives the communication connection request from the moving machine 401, 402, and 403**, and [0054] **master base station 1 investigates the slot opening information and carrier sensing**

information on each base transceiver station) and reception slots in the frame according to a traffic channel allocation instruction (see Obata, [0053]-[0054] master base station 1 investigates the slot opening information and carrier sensing information on each base transceiver station);

(2) allocation instructing means for receiving the reception level (see Obata, [0035] **determines the base transceiver station, the communications channel, and slot timing**, and [0054] **carrier sensing information on each base transceiver station**) from each of the base stations (see Obata, [0053]-[0054] master base station 1 investigates the slot opening information and carrier sensing information on each base transceiver station), determining the base station of the maximum reception level (see Stanwood, [0074] the base stations preferably autonomously **monitor** and learn about the **bandwidth** requirements of their respective links using a session-based approach. The base stations preferably report results back to their associated cluster controller, [0088]-[0092]) and transmitting the traffic channel allocation instruction to the determined base station (see Stanwood, [0071] **controller 162** provides these parameters to the base stations upon system installation. The cluster controller 162 is also preferably **provided an initial parameter value based upon the number of expected customers and customer types in a given cluster coverage area**).

Claim Rejections - 35 USC § 112

2. Claims 7-9 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new matter (**a computer readable medium**) added (after the application was filed).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4, 7, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eun (U.S.Pat-6119015), in view of Obata Kiyoshi (JP Application-2003-392529), in view of Kotani Gensai (JP 11-205849) and further in view of Stanwood et al. (U.S.Pub-20050243745).

Regarding claim 1, Eun teaches a radio base station system formed of one master base station (master base stations 200 and 300), a plurality of slave base stations (slave base stations 400 and 500), and a control device (PABX/key system) controlling the master base station and the slave base stations (fig.1), wherein the slave base station includes:

frame synchronizing means for synchronizing a frame of said slave base station with a frame of the master base station (col.2, lines 50-67), and

each of the base stations (fig.1) includes:

Eun fails to specifically disclose reception level obtaining means for obtaining a

reception level corresponding to received signal strength of said set reception control slot when a link channel establishment request message is received in said set reception control slot, and traffic channel allocating means for allocating a traffic channel with respect to a mobile station transmitting the link channel establishment request message to predetermined transmission and reception slots in the frame according to a traffic channel allocation instruction; and the control device includes: allocation instructing means for receiving the reception level from each of the base stations, determining the base station of the maximum reception level and transmitting the traffic channel allocation instruction to the determined base station.

However, Obata teaches reception level obtaining means for obtaining a reception level corresponding to received signal strength of said set reception control slot when a link channel establishment request message is received in said set reception control slot ([0053]-[0054] master base station 1 investigates the slot opening information and carrier sensing information on each base transceiver station), and traffic channel allocating means for allocating a traffic channel with respect to a mobile station transmitting the link channel establishment request message to predetermined transmission ([0053] the wireless circuit control channel control section 101 receives the communication connection request from the moving machine 401, 402, and 403, and [0054] master base station 1 investigates the slot opening information and carrier sensing information on each base transceiver station) and reception slots in the frame according to a traffic channel allocation instruction ([0053]-[0054] master base station 1 investigates the slot opening information and carrier sensing information on each base

transceiver station); and the control device includes (fig.4, item 502): allocation instructing means for receiving the reception level from each of the base stations([0053]-[0054] master base station 1 investigates the slot opening information and carrier sensing information on each base transceiver station), determining the base station of the maximum reception level and transmitting the traffic channel allocation instruction to the determined base station (not show).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Obata to Eun to be increased more easily than in the conventional system, and the multichannel connection can be readily implemented in accordance with the traffic conditions.

Eun and Obata fail to specifically disclose slot setting means for setting, as a reception control slot, a predetermined reception slot in the frame of said slave base station matching in timing with a reception control slot in the frame of the master base station.

However, Kotani teaches slot setting means for setting (abstract), as a reception control slot, a predetermined reception slot in the frame of said slave base station matching in timing with a reception control slot in the frame of the master base station ([0038]-[0041]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Kotani to Eun and Obata to be calculated easily and suitable transmit timing can be set up.

Eun, Obata and Kotani fail to specifically disclose determining the base station of the maximum reception level and transmitting the traffic channel allocation instruction to the determined base station.

However, Stanwood teaches determining the base station of the maximum reception level ([0054] lines 13-15) and transmitting the traffic channel allocation instruction to the determined base station ([0070]-[0071]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Stanwood to Eun, Obata and Kotani to easy to monitor and update the communication link time slot allocations.

Regarding claim 4, Eun teaches a channel allocation method in a radio base station system formed of one master base station (master base stations 200 and 300), a plurality of slave base stations (slave base stations 400 and 500) and a control device (PABX/key system) controlling the master base station and the slave base stations (fig.1), comprising the steps of:

causing the slave base station to synchronize a frame of said slave base station with a frame of the master base station (col.2, lines 50-67);

causing the base station receiving the traffic channel (col.4, lines 39-42) allocation instruction to allocate a traffic channel with respect to a mobile station transmitting the link channel establishment request message to the predetermined transmission (col.4, lines 33-47) and reception slots in the frame (fig.5, col.8, line 58 to col.9, line 32).

Eun fails to specifically disclose causing each of the base stations to obtain a reception level corresponding to a received signal strength of the set reception control slot when the base station receives a link channel establishment request message in said set reception control slot; causing the control device to receive the reception level from each of the base stations, determine the base station of the maximum reception level and transmit a traffic channel allocation instruction to the determined base station.

However, Obata teaches causing each of the base stations to obtain a reception level corresponding to a received signal strength of the set reception control slot when the base station receives a link channel establishment request message ([0053] the wireless circuit control channel control section 101 receives the communication connection request from the moving machine 401, 402, and 403) in said set reception control slot ([0053]-[0054] master base station 1 investigates the slot opening information and carrier sensing information on each base transceiver station); causing the control device to receive the reception level from each of the base stations instruction ([0053]-[0054] master base station 1 investigates the slot opening information and carrier sensing information on each base transceiver station), determine the base station of the maximum reception level and transmit a traffic channel allocation instruction to the determined base station (not show).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Obata to Eun to be increased more easily than in the conventional system, and the multichannel connection can be readily implemented in accordance with the traffic conditions.

Eun and Obata fail to specifically disclose causing the slave base station to set a predetermined reception slot in the frame of said slave base station matching in timing with the reception control slot in the frame of the master base station as the reception control slot.

However, Kotani teaches causing the slave base station (abstract) to set a predetermined reception slot in the frame of said slave base station matching in timing with the reception control slot in the frame of the master base station as the reception control slot ([0038]-[0041]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Kotani to Eun and Obata to be calculated easily and suitable transmit timing can be set up.

Eun, Obata, and Kotani fail to specifically disclose determine the base station of the maximum reception level and transmit a traffic channel allocation instruction to the determined base station.

However, Stanwood teaches determine the base station of the maximum reception level ([0054] lines 13-15) and transmit a traffic channel allocation instruction to the determined base station ([0070]-[0071]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Stanwood to Eun, Obata, and Kotani to easy to monitor and update the communication link time slot allocations.

Regarding claim 7, Eun teaches a computer readable medium embedding a channel allocation program in a radio base station system formed of one master base station (master base stations 200 and 300), a plurality of slave base stations (slave base stations 400 and 500) and a control device (PABX/key system) controlling the master base station and the slave base stations (fig.1), the channel allocation program, when executed by a computer, causing the computer to execute the steps of:

causing the slave base station to synchronize a frame of said slave base station with a frame of the master base station (col.2, lines 50-67);

causing the base station receiving the traffic channel(col.4, lines 39-42) allocation instruction to allocate a traffic channel with respect to a mobile station transmitting the link channel establishment request message to the predetermined transmission (col.4, lines 33-47) and reception slots in the frame (fig.5, col.8, line 58 to col.9, line 32).

Eun fails to specifically disclose causing each of the base stations to obtain a reception level corresponding to a received signal strength of the set reception control slot when the base station receives a link channel establishment request message in said set reception control slot; causing the control device to receive the reception level from each of the base stations, determine the base station of the maximum reception level and transmit a traffic channel allocation instruction to the determined base station.

However, Obata teaches causing each of the base stations to obtain a reception level corresponding to a received signal strength of the set reception control slot when

the base station receives a link channel establishment request message ([0053] the wireless circuit control channel control section 101 receives the communication connection request from the moving machine 401, 402, and 403) in said set reception control slot ([0053]-[0054] master base station 1 investigates the slot opening information and carrier sensing information on each base transceiver station); causing the control device to receive the reception level from each of the base stations instruction ([0053]-[0054] master base station 1 investigates the slot opening information and carrier sensing information on each base transceiver station), determine the base station of the maximum reception level and transmit a traffic channel allocation instruction to the determined base station (not show).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Obata to Eun to be increased more easily than in the conventional system, and the multichannel connection can be readily implemented in accordance with the traffic conditions.

Eun and Obata fail to specifically disclose causing the slave base station to set a predetermined reception slot in the frame of said slave base station matching in timing with the reception control slot in the frame of the master base station as the reception control slot.

However, Kotani teaches causing the slave base station (abstract) to set a predetermined reception slot in the frame of said slave base station matching in timing with the reception control slot in the frame of the master base station as the reception control slot ([0038]-[0041]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Kotani to Eun and Obata fail to be calculated easily and suitable transmit timing can be set up.

Eun, Obata, and Kotani fail to specifically disclose determine the base station of the maximum reception level and transmit a traffic channel allocation instruction to the determined base station.

However, Stanwood teaches determine the base station of the maximum reception level ([0054] lines 13-15) and transmit a traffic channel allocation instruction to the determined base station ([0070]-[0071]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Stanwood to Eun, Obata, and Kotani to easy to monitor and update the communication link time slot allocations.

Regarding claim 10, Eun, Obata, Kotani, and Stanwood further teach the radio base station system according to claim 2, wherein said predetermined conditions include a measured minimum reception slot interference level ([0053]-[0054] master base station 1 investigates the slot opening information and carrier sensing information on each base transceiver station and [0066]).

Regarding claim 11 is rejected with the same reasons set forth in claim 10.

Regarding claim 12 is rejected with the same reasons set forth in claim 10.

5. Claims 2-3, 5-6, and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eun (U.S.Pat-6119015), in view of Obata Kiyoshi (JP Application-2003-392529), in view of Kotani Gensai (JP-11-205849), in view of Stanwood et al. (U.S.Pub-20050243745), and further in view of Yonekura et al. (JP-2000-253460).

Regarding claim 2, Eun, Obata, Kotani, and Stanwood further teach the radio base station system according to claim 1,

Eun, Obata, Kotani, and Stanwood fail to specifically disclose wherein said traffic channel allocation means of the slave base station allocates the traffic channel to the reception slot satisfying predetermined conditions when said reception slot satisfying said predetermined conditions exists other than said predetermined reception slot, and allocates the traffic channel to said predetermined reception slot when the reception slot satisfying the predetermined conditions does not exist.

However, Yonekura teaches wherein said traffic channel allocation means of the slave base station allocates the traffic channel to the reception slot satisfying predetermined conditions when said reception slot satisfying said predetermined conditions exists other than said predetermined reception slot (abstract, [0003] and [0008]), and allocates the traffic channel to said predetermined reception slot when the reception slot satisfying the predetermined conditions does not exist (abstract, [0003] and [0008]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Yonekura to Eun, Obata,

Kotani, and Stanwood to make it possible to connect an emergency call even when there is no free calling slot on a radio line in a mobile object communication system.

Regarding claim 3, Eun, Obata, Kotani, Stanwood, and Yonekura further teach the radio base station system according to claim 2, wherein said slave base station further includes:

traffic channel switching means for switching the slot for allocation of the traffic channel to the reception slot satisfying said predetermined conditions (see Yonekura, [0079]-[0083]) when the reception slot satisfying said predetermined conditions occurs among the reception slots other than said predetermined reception slot after the traffic channel is allocated to said predetermined reception channel (see Yonekura, [0079]-[0083]).

Regarding claim 5 is rejected with the same reasons set forth in claim 2.

Regarding claim 6 is rejected with the same reasons set forth in claim 3.

Regarding claim 8 is rejected with the same reasons set forth in claim 2.

Regarding claim 9 is rejected with the same reasons set forth in claim 3.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI M. NGUYEN whose telephone number is (571)272-7923. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent P. Harper can be reached on 571.272.7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/
Supervisory Patent Examiner, Art Unit 2617

/Khai M Nguyen/
Examiner, Art Unit 2617 6/26/2009